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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/089,310 08/28/2002 Simon Christopher Peter Ashton

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EXAMINER

NGUYEN, TAM M

ART UNIT

PAPER NUMBER

1764

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/089,310	Applicant(s) ASHTON, SIMON CHRISTOPHER PETER	
	Examiner Tam M. Nguyen	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 4-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

Claims 4-8 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as obvious over GB-735,134.

The GB reference discloses a process for producing a jet fuel comprising a kerosene fraction and a naphtha fraction (page 10, lines 89-95). The naphtha fraction (produced by catalytic cracking) has a boiling point of from 280 to 350° F (138-177° C) and the kerosene

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fraction has a boiling point of from 330 to 550° F (167-287° C) (page 3, line 73, 89-90; page 9, lines 19-21, 82-83). The GB reference teaches that the naphtha fraction is rich in aromatics which is then incorporated directly in the jet fuel which has a total aromatics content of about 20 to 25 vol. % as claimed (page 9, lines 85-89, 108-111; page 10, lines 92-93; Tables 1 and 4). Hence, it would be expected that the naphtha fraction would contain at least 50 vol. % of aromatics as claimed. In addition, the GB reference discloses that the kerosene fraction is represented one of the major constituents of the jet fuel (page 9, line 126 through page 10, line 2) and the jet fuel comprises a minimum of 0.5 or 2. vol. % of the naphtha fraction (page 9, line 89-92). Therefore, it would be expected that the jet fuel would comprises more than 75 vol. % of kerosene. It is noted that the reference does not specifically disclose that the jet fuel has a freezing point below that of the kerosene prior to blending. However, the reference discloses that the jet fuel has a freezing point of lower than -76° F (-60° C). Page 3, lines 15-16. Therefore, it would be expected that the jet fuel would have a freezing point below that of the kerosene prior to blending as claimed.

Claims 1, 3, and 4:

The GB reference does not disclose that the claimed boiling ranges of the naphtha fraction and the kerosene fraction. However, the reference discloses that the naphtha fraction has a boiling point of from 280 to 350° F (138-177° C) and the kerosene fraction has a boiling point of from 330 to 550° F (167-287° C)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of the GB reference by utilizing a naphtha fraction and a kerosene fraction having the claimed ranges because one of skill in the art would

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utilize any naphtha fraction having a boiling point of from 280 to 350° F (138-177° C) and any kerosene fraction having a boiling point of from 330 to 550° F (167-287° C) including the overlapped claimed ranges with the expectation that any fraction having a boiling point within the ranges would give similar results.

Claim 2:

The jet fuel has a freezing point of lower than -76° F (-60° C). Page 3, lines 15-16.

Claims 5 and 7:

The jet fuel comprises a minimum of 0.5 or 2. vol. % of the naphtha fraction (page 9, line 89-92). As discussed above, the jet fuel comprises primary kerosene and naphtha (it is optional to add light fractions (e.g., C<sub>4</sub>, C<sub>5</sub>) to the jet fuel. Thus, it would be expected that the amount of the kerosene fraction in the jet fuel would be in the range of 80-90 vol. %.

Claim 6:

The naphtha fraction is only optional to treat in a hydroforming zone to increase octane number of the fraction where it is intended that it be used as gasoline. Pages 9, lines 93-102; figure 4. Therefore, the limitation "substantially unhydrorefined" is embraced by the reference.

Claim 8:

The jet fuel also comprises anti-oxidants. Page 10, line 76.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam M. Nguyen whose telephone number is (571) 272-1452. The examiner can normally be reached on Monday through Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tam M. Nguyen  
Examiner  
Art Unit 1764

TN



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